

FIG. 1

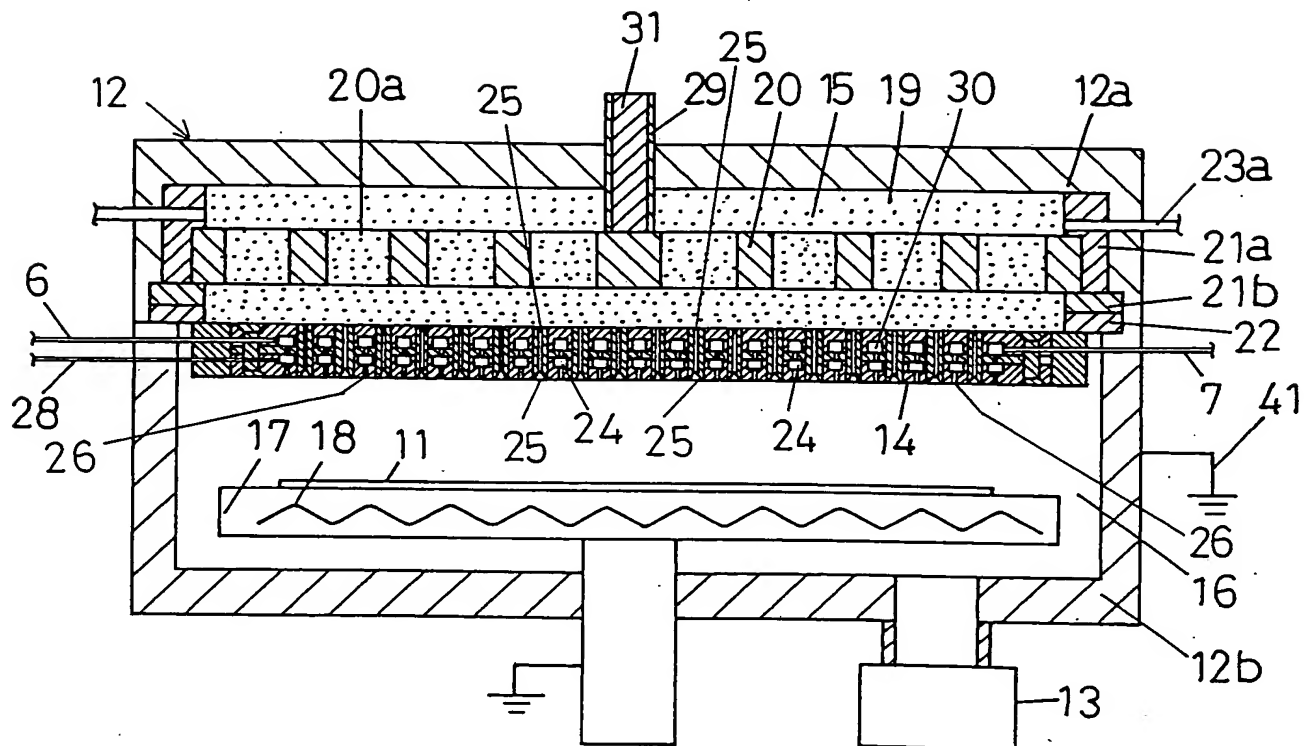


FIG. 2

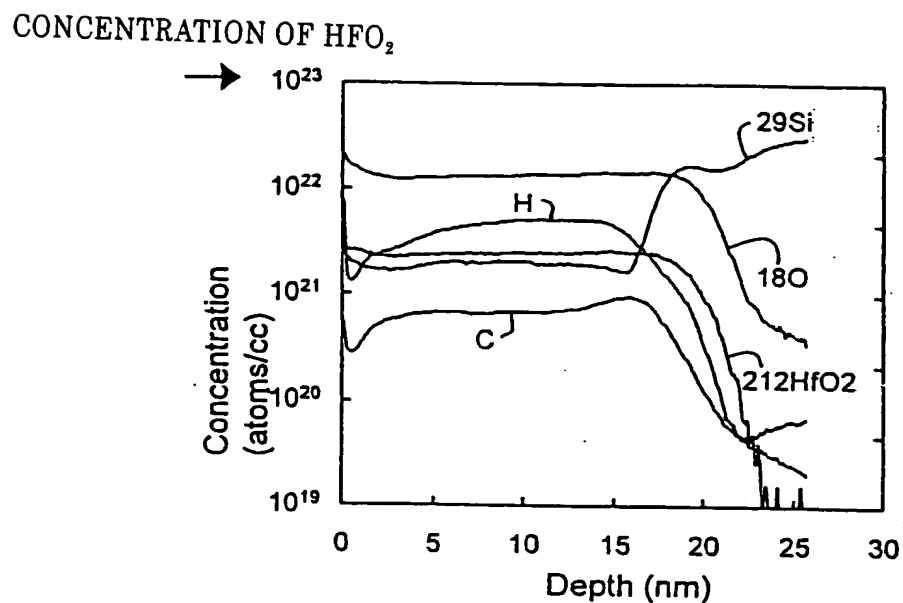
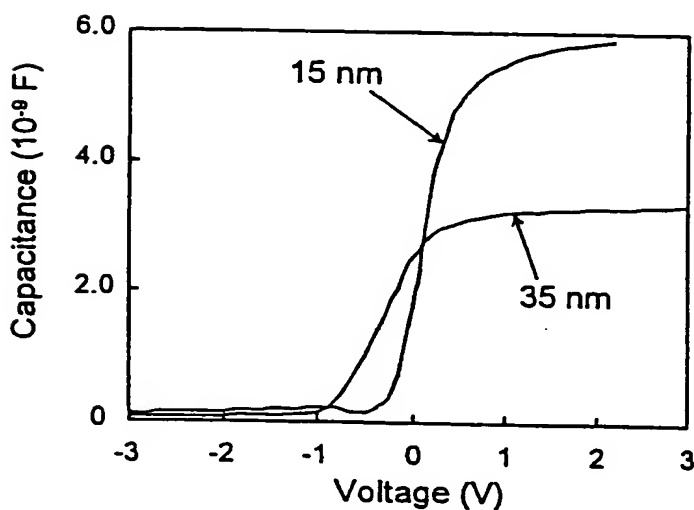
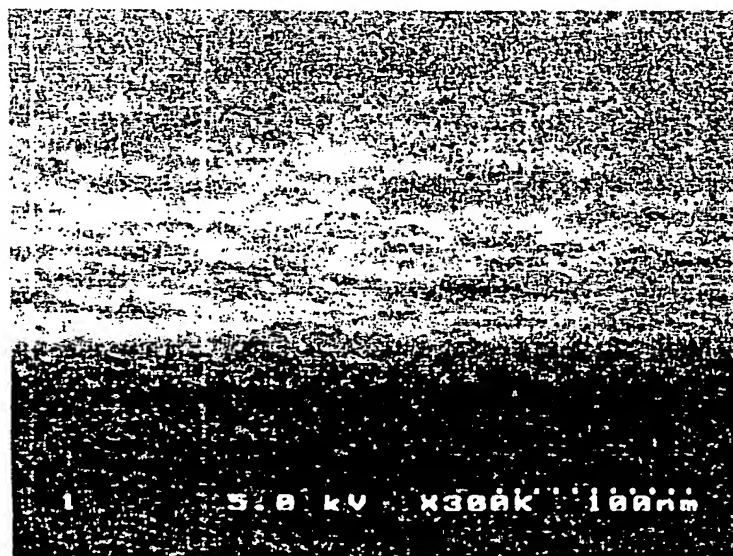


FIG. 3



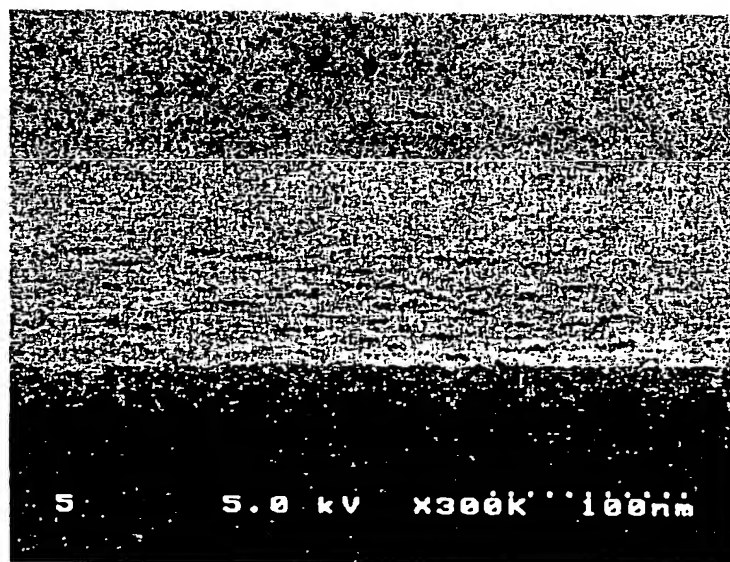
DEPENDENCY OF HIGH FREQUENCY C-V PROPERTY ON FILM THICKNESS

FIG. 4(a)



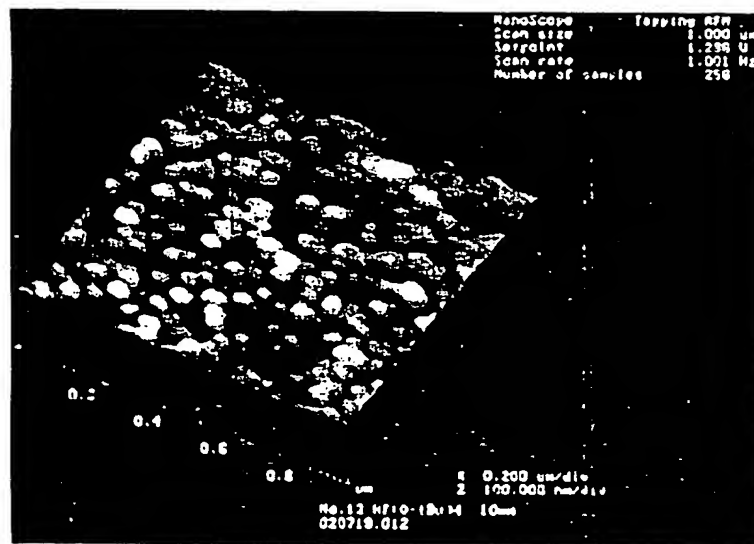
SEM IMAGES OF HfO_2 FILMS (FILM THICKNESS: 28nm)
FILM FORMED BY USING O_2 GAS (COMPARATIVE SAMPLE)

FIG. 4(b)



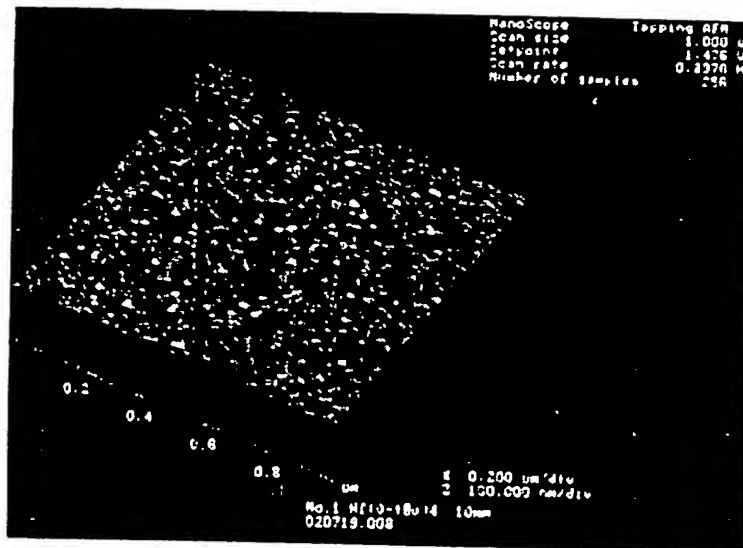
SEM IMAGES OF HfO_2 FILMS (FILM THICKNESS: 28nm)
FILM FORMED BY USING OXYGEN RADICAL

FIG. 5(a)

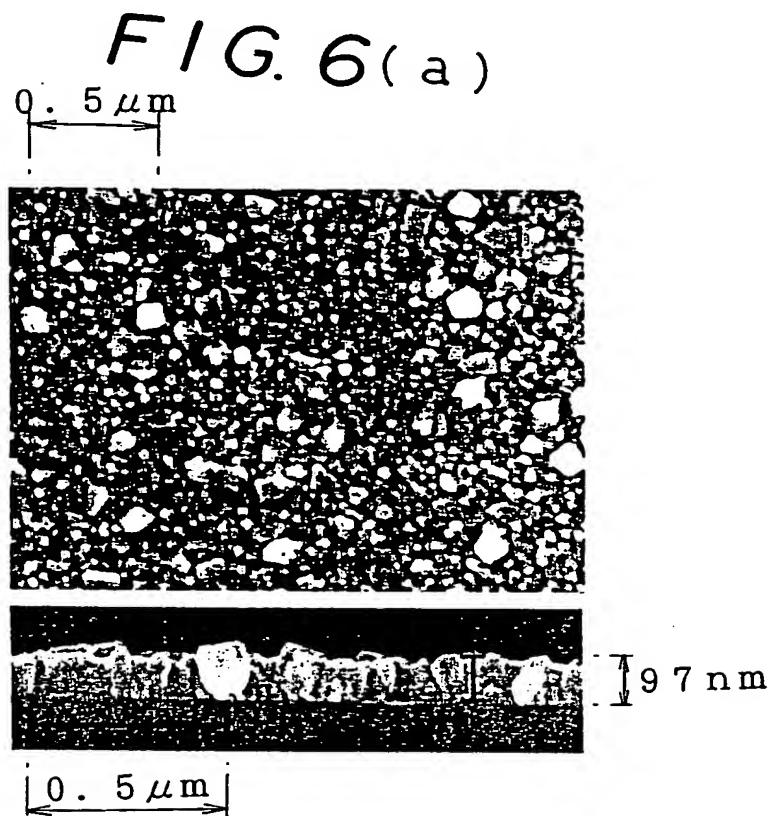


AFM IMAGES OF HFO₂ FILMS (FILM THICKNESS:35nm)
 FILM FORMED BY USING O₂ GAS (COMPARATIVE SAMPLE)

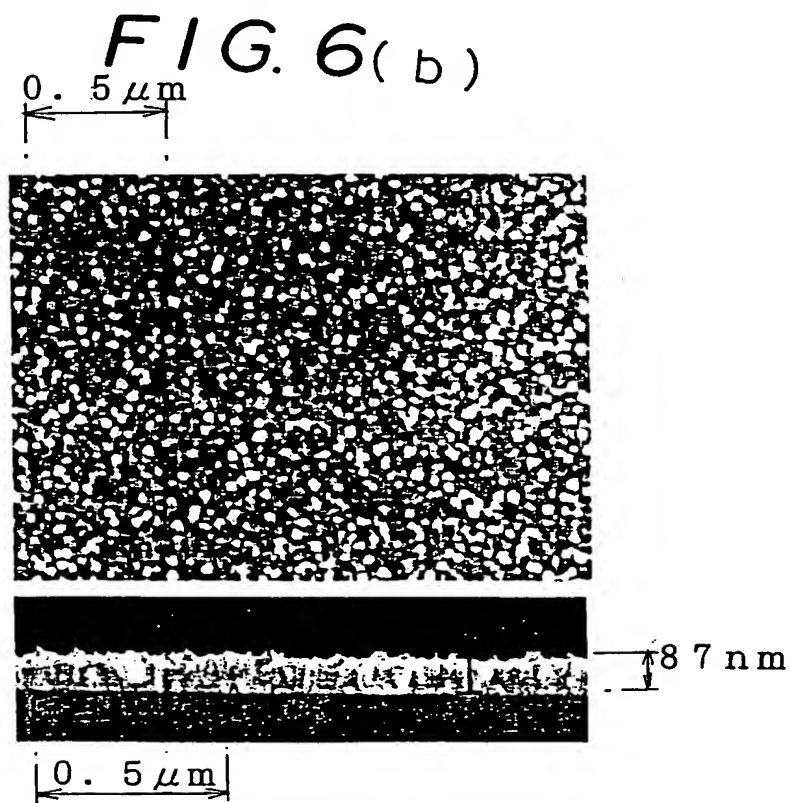
FIG. 5(b)



AFM IMAGES OF HFO₂ FILMS (FILM THICKNESS:35nm)
 FILM FORMED BY USING OXYGEN RADICAL



SEM IMAGES OF RuO_2 FILMS
FILM FORMED BY USING O_2 GAS (COMPARATIVE SAMPLE)



SEM IMAGES OF RuO_2 FILMS
FILM FORMED BY USING OXYGEN RADICAL